

## **REMARKS/ARGUMENTS**

Claims 3, 6-24, 27, 32 and 36 are now pending in the application. Applicants acknowledge that Claims 3, 6-12, 15, 20-24, 27, 32 and 36 are allowed.

### **DETAILED ACTION**

Items 1-5: Applicants acknowledge withdrawal of various objections and rejections.

Item 6: Claims 13-14 and 16-19 were rejected under 35 U.S.C. 112, first paragraph for failing to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with the claims. This rejection is respectfully traversed. The specification clearly teaches the construction of the vectors as claimed in Claims 3 and 6 and the dependent claims 13-14 and 16-19. The utility of such constructs is supported throughout the specification.

The scope of Claim 13 encompasses a viral vector with the structure as described in Claims 3 and 6, wherein said first or said second foreign RNA encodes for all or part of a Nop 10-like small nucleolar ribonucleoprotein. The specification clearly teaches how to make such a viral vector. The construction of the viral vector is enabled over the scope of the claim. In addition, the specification teaches one skilled in the art to use such a viral vector. Claim 13 is not limited to a specific utility. One skilled in the art would appreciate that the uses of such a viral vector are not limited to the specific example of Example 14, but could be used more broadly as described in the specification in an attempt to change phenotypic traits in the plant host, affect biochemical pathways within the plant, or affect endogenous gene expression within the plant. On the basis of the teaching in the specification, one skilled in the art would appreciate how to go about using the claimed viral vector in such a study.

With respect to the teaching in Example 14 of the specification, the Examiner asserts that it is not clear to how one in the forest industry would use a plant with increased stem circumference, distorted leaves and severely stunted growth. Although these morphological features may not appear to be desirable at first glance, these changes

derive from the genetic and biochemical changes that occur as a result of using the claimed viral vector. The forestry industry produces feedstocks for paper milling and other industries and is exploring various approaches to generating optimized feedstocks for the biofuels industry. If one considers the impact of various plant biochemical processes such as cellulose deposition, lignin content and polymerization, as well as other biochemical features of the plant in producing easily digested and converted biofuel feedstocks from woody plant biomass, it becomes clear how the claimed viral vector could be of use to the forestry industry. By identifying and manipulating the molecular genetic controls that regulate these biochemical traits, Applicants suggest that the claimed viral vectors can indeed be applied to the benefit of the forest industry as well as other industries dependent on plants and who may also have an interest in modifying the plants' properties.

In addition, the Examiner asserts that it is unclear which part of the sequence can be used to generate a silencing vector which confers similar phenotype as the exemplified vectors. Applicants respectfully point out that Claims 13-14 and 16-19 do not contain a limitation to a silencing vector. By following the teaching in the instant application one of skill in the art would be able to determine how to construct and apply the claimed viral vectors.

Similar arguments apply to Claims 14 and 16-19. Hence, Applicants submit that the specification teaches one skilled in the art to make and use the claimed bipartite RNA viral vectors commensurate with the scope of the claims. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

**Conclusions:**

Claims 3, 6-24, 27, 32 and 36 are now pending in the application. Claims 3, 6-12, 15, 20-24, 27, 32 and 36 have been found to be allowable. In view of the comments above, the remaining rejection has been overcome. Reconsideration, withdrawal of the rejection, and early indication of allowance are respectfully requested. If any issues remain, the Examiner is encouraged to call the undersigned for prompt resolution.

The commissioner hereby is authorized to charge payment of any fees under 37 CFR § 1.17, which may become due in connection with the instant application or credit any overpayment to Deposit Account No.500933.

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Respectfully submitted,

/Wayne Fitzmaurice/

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